REMARKS

The foregoing amendments are made to adopt the helpful suggestions of the examiner and to clarify the differences between the present invention and the prior art. In this connection, claim 1 has been amended to indicate that **each** inner and (outer) lateral groove extends from the inner (or outer) shoulder toward but does not reach the corresponding inner (or outer) circumferential groove, as shown Figs. 1, 1A, 2, 5, 5A, 6, 6A, 7, 7A and 8 of the drawings.

In view of these amendments, applicant believes the application should now be in condition for allowance. In this connection only one cited reference, Lopez 652, describes a tire tread in which none of the lateral grooves in the inner and outer shoulders reaches the corresponding inner or outer circumferential groove, as now expressly claimed. Accordingly, all of the rejections which do not include Lopez 652 as prior art are improper, insofar as they apply to the claims as amended, since they fail to suggest a pneumatic tire in which **each** of the lateral grooves in the inner and outer shoulder treads extends towards but does not reach the corresponding inner or outer circumferential groove, as now claimed. MPEP §2142. (To establish a prima facie case of obvious, the prior art must provide a disclosure or suggestion of **all** features being claimed.)

Regarding the rejection based on Lopez 652 (Paragraph 8 of the Office Action of February 24, 2006), applicant begins be noting that the Federal Circuit in its recent case of In re Kahn, __ F.3d __ (Fed. Cir. 3/22/2006, No. 04-1616) confirmed that rejections under 35 U.S.C. §103 are proper only if the Board (and hence the examiners) articulate viable reasons why a person of ordinary skill in the art **who faced the same problem faced and solved by the applicant** would have been motivated to modify prior art in the manner proposed in the rejection. As explained by the Court, this is necessary to determine that the particular modification proposed is fairly suggested by the prior art and not based on a hindsight reading of the applicant's specification.

To this end, the examiner in his office action sets out various reasons why he believes a person of ordinary skill in the art would have been motivated to make the modifications he proposes in the sole rejection based on Lopez 652. However when objectively considered, these

reasons are not well-taken, applicant believes, thereby demonstrating that this rejection is based on hindsight.

Recognizing that Lopez 652 is a **design patent** directed to the **non-functional** ornamental and fanciful features of a tire tread design and not a utility patent directed to the functional features of a pneumatic or other tire, the examiner first asserts that it would have been obvious to make a working tire using the particular tread design shown in the Lopez 652 patent. Recognizing that the widths of the shoulder ribs in this tread design are much larger than called for in the claims, (the widths of the Lopez 652 shoulder treads are approximately 24.5%, which can be easily determined from Fig. 2 of the patent), the examiner then asserts that it would have been obvious to reduce the widths of these shoulder treads to 17-19% in light of the asserted disclosure in Hitzky that a shoulder width of 19-26.5% leads to better handling and the additional disclosure in Japan 105 that a shoulder width of 15-22.5% leads to better maneuvering stability. Applicant believes that no tire designer faced with applicant's problem would have seriously proposed such an approach.

Applicant's objective in designing the inventive pneumatic tire was to develop a new tire having improved traction on both wet and dry surfaces. It was not to develop a "pretty" tire. That being the case, a person of ordinary skill in the art seeking to accomplish this same objective would have started with existing tire designs which also exhibited good traction on dry surfaces or wet surfaces or both. He/she would not have started with a tire tread design which was visually pleasing, but about which the operating features were unknown. That the examiner has articulated his obviousness assertions in terms of modifying a fanciful tread design rather than a specific tire already known to exhibit relevant operating characteristics is a clear sign that this rejection is based on a hindsight reconstruction of the prior art, not an impartial assessment of what the prior art fairly suggests.

A further sign of hindsight is the examiner's handling of the Hitzky patent. According to the examiner it would have been obvious to reduce the widths of the shoulder treads of the Lopez 652 design (24.5% of overall treadwidth) to 17-19% in light of the disclosure in Hitzky that a shoulder width of 19-26.5% leads to better handling.

However, Hitzky does not disclose that a shoulder width of 19-26.5% leads to better handling. On the contrary, Hitzky's disclosure is clear that the shoulder width should be 22-28%. *See*, col. 3, line 24. The examiner's attempt to transmogrify this express disclosure of 22-28% into 19-26.5% by reference to the width of the adjacent circumferential groove is another clear sign that the examiner is reaching beyond the bounds of reasonableness in making this rejection. Hitzky's disclosure, like applicant's claims and disclosure (see paragraph [0017]) are clear—tread width refers to the width of the tread itself as measured at its outside surface or "footprint," not to some other variable. Therefore, the examiner's attempt to transmogrify Hitzky's clear disclosure of a 22-28% footprint into 19-26.5% footprint is another clear sign of hindsight.

Moreover, Hitzky's disclosure is not that a particular shoulder tread width, in isolation, leads to improved handling. Rather, Hitzky's disclosure is that this shoulder tread width **in combination** with many other tread design features will lead to improved operating characteristics. Some of these other tread design features include:

- forming each rib from multiple block separated by substantial lateral grooves angled in a particular way (col. 3, lines 26-33 and col. 3, line 63-col. 4, line 35),
- forming the main portion of each shoulder rib to have the same geometric shape as the block elements of the center rib (col. 5, lines 9-12), and
- forming lateral grooves in the shoulder ribs which communicate with the adjacent circumferential groove and which are defined by a pair of groove portions each having a different thickness and each intersecting with the other at a particular angle (col. 5, lines 12-20).

Therefore even if a person of ordinary skill in the art were motivated to modify the Lopez 652 tread design in light of the Hitzky patent for the purpose of and with the reasonable expectation of providing a tire with improved wet and dry traction, he would immediately recognize that essentially all features of the Lopez 652 tread design would have to be replaced with those of Hitzky's tread design **including lateral grooves in the shoulder treads which reach the**

adjacent circumferential groove since Hitzky is clear that it is **all** of these features **in combination** which contribute to his improved operating characteristics.

That the examiner has selected only one Hitzky design feature and rejected all others in connection with modifying the Lopez 652 tread design is a further clear sign that this rejection is based on hindsight. Bausch & Lomb, Inc. v. Barnes-Hind, Inc., 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986); In re Hedges, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986). ("It is impermissible within the framework of 35 USC §103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to a full appreciation of what such reference fairly suggests to one of ordinary skill in the art.")

Furthermore, because the width of the Lopez 652 shoulder ribs (24.5%) is squarely within Hitzky's expressly disclosed range of 22-28%, a person of ordinary skill in the art would not have been led by Hitzky to make any change whatsoever to the shoulder width of the Lopez 652 design. The examiner's contrary assertion in this rejection, i.e., that applying Hitzky's teachings to Lopez 652 would lead to a shoulder tread width of 17-19%, is a further clear sign of hindsight.

Further evidence of hindsight can be found in the examiner's handling of Japan 105. For example, Japan 105 is clear that its enhanced operating characteristics are due to the **combination** of shoulder width and the radius of curvature of the tire where its tread joins its side wall. Yet the examiner **ignores** this radius of curvature when he asserts that it would have been obvious to modify the shoulder tread width of the Lopez 652 design in view of Japan 105. This is because neither Lopez 652 nor Hitzky shows a radius of curvature anything like that required in Japan 105, and therefore it is unclear if the tread width feature of Japan 105 would have any relevance to the tires of these references.

In the same way, the examiner also **ignores** the express statement in Japan 105 that its technology is applicable only to pneumatic tires having an aspect ratio of less than 70%. Both Lopez 652 and Hitzky are silent regarding aspect ratio, and therefore it is doubly unclear if the tread width feature of Japan 105 would have any relevance to the tires of these references.

Finally, the examiner also **ignores** the clear inconsistency between Japan 105 on the one hand and Lopez 652 and Hitzky on the other hand as they relate to lateral grooves. The drawings of Japan 105 make clear that the treads of its tires have **no lateral grooves**, while the tires in both Lopez 652 and Hitzky clearly have lateral grooves as essential features. Because of the critical importance of lateral tread grooves to tire performance (e.g., see, col. 1, line 18 of Mirtain, U.S. 4,387,754), there is no reasonable basis in the record, applicant believes, for assuming that the teachings of Japan 105 relating to the width of **grooveless** shoulders would have any relevance to tires of Lopez 652 and Hitzky in which lateral shoulder grooves are essential features.

Once again, the examiner's decision to select only a single disclosed feature from Japan 105 (shoulder tread width) for modifying the Lopez 652 design and to disregard all the other design features of Japan 105 necessary to accomplish the improved results described in that patent is a clear sign of hindsight.

As indicated above, Lopez 652 is the only cited reference describing a tire in which none of the lateral grooves in the inner and outer shoulder treads reaches the corresponding inner or outer circumferential groove, as now expressly claimed. Although Lopez 652 may qualify as "prior art" under 35 U.S.C. §103, any tire designer who proposed that the search for a new tire design with improved wet and dry traction should start with this patent would not be taken seriously, applicant believes. Moreover any tire designer who further asserted that, because of the Hitzky and Japan 105 patents, one could expect the Lopez 652 tread design to yield a tire with enhanced wet and dry properties if built with a shoulder width of 17-19% as opposed to 24.5% would be regarded with even more skepticism.

The Federal Circuit has made clear that the obviousness inquiry under 35 U.S.C. §103, although necessarily done in retrospect, is nonetheless a real-world inquiry. It is not a hypothetical exercise. In other words, it seeks practical solutions to practical problems.

In this case the theory of obviousness articulated by the examiner, although addressing a real world problem, starts from a place where no serious tire designer would start and proceeds down a path where no serious tire designer would go. This shows that this rejection is not based

on what the references fairly suggest but rather a hindsight reconstruction of the prior art using applicant's own specification as a guide.

If any fee is due in connection with this matter, please charge our Deposit Account No. 03-0172.

Respectfully submitted,

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